

THAT WHICH IS CLAIMED:

1. A multi-layer printed wire board structure, comprising:
 - a first conductive layer having a thickness between 25 and 50 um;
 - a first insulative-coated conductive layer upon which said first conductive
 - 5 layer is disposed, wherein said first insulative-coated conductive layer has a thickness between 50 and 70 um;
 - a second conductive layer upon which said first insulative-coated conductive layer is disposed, wherein said second conductive layer has a thickness between 25 and 50 um;
 - 10 a first insulative layer upon which said second conductive layer is disposed, wherein the first insulative layer has a thickness between 50 and 100 um;
 - a third conductive layer upon which said first insulative layer is disposed, wherein the third conductive layer has a thickness between 12 and 19 um; and
 - a second insulative layer upon which said third conductive layer is
 - 15 disposed wherein the second insulative layer has a thickness between 50 and 100 um.
2. A multi-layer printed wire board structure of Claim 1 further comprising:
 - a fourth conductive layer upon which said second insulative is disposed, wherein the fourth conductive layer has a thickness of 12 and 19 um; and
 - 20 a third insulative layer upon which said fourth conductive layer is disposed, wherein the third insulative layer has a thickness between 50 and 100 um.
3. A multi-layer printed wire board structure of Claim 1 further comprising:
 - a fifth conductive layer upon which said third insulative layer is disposed,
 - 25 wherein said fifth copper layer has a thickness between 12 and 19 um;
 - a fourth insulative layer upon which said fifth conductive layer is disposed, wherein said fourth insulative layer has a thickness between 50 and 100 um;
 - a sixth conductive layer upon which said fourth insulative layer is disposed wherein said sixth conductive layer has a thickness between 12 and 19 um;
 - 30 a fifth insulative layer upon which said sixth conductive layer is disposed, wherein said fifth insulative layer has a thickness between 50 and 100 um;

a seventh conductive layer upon which said fifth insulative layer is disposed, wherein said seventh conductive layer has a thickness between 25 and 50 μm ;

a second insulative-coated conductive layer upon which said seventh conductive layer is disposed, wherein said second insulative-coated conductive layer has
5 a thickness between 50 and 70 μm ; and

an eighth conductive layer upon which said second insulative-coated conductive layer is disposed, wherein said eighth conductive layer has a thickness between 25 and 50 μm .

10 4. A multi layer printed wire board structure of Claim 1, wherein said first and second conductive layers has a respective nominal thickness of 35 μm ; said first insulative-coated conductive layer has a nominal thickness of 60 μm ; said third conductive layer has a nominal thickness of 17 μm ; and each insulative layer has a respective nominal thickness of 75 μm .

15 5. A multi-layer printed wire board structure of Claim 1, wherein said first and second conductive layers are formed of copper.

6. A multi-layer printed wire board structure of Claim 1, wherein said first insulative-coated conductive layer comprises a resin-coated copper layer.

20 7. A multi-layer printed wire board structure of Claim 1, wherein each insulative layer comprises a dielectric layer.

8. A multi-layer printed wire board structure of Claim 7, wherein each insulative layer is formed of glass fibers and an epoxy matrix.

25 9. A multi-layer printed wire board structure of Claim 1 wherein said first insulative-coated conductive layer defines at least one via between said first and second conductive layers such that said first and second conductive layers are in electrical communication through the at least one via.

10. A mobile terminal comprising:
a transmitter and receiver for transmitting and receiving signals, respectively, via
a wireless communications system; and
a multi-layer printed wire board structure in electrical communication with said
5 transmitter and receiver, the structure comprising:
a first conductive layer having a thickness between 25 and 50 um;
a first insulative-coated conductive layer upon which said first conductive
layer is disposed, wherein said first insulative-coated conductive layer has a thickness
between 50 and 70 um;
10 a second conductive layer upon which said first insulative-coated
conductive layer is disposed, wherein said second conductive layer has a thickness
between 25 and 50 um;
a first insulative layer upon which said second conductive layer is
disposed, wherein the first insulative layer has a thickness between 50 and 100 um;
15 a third conductive layer upon which said first insulative layer is disposed,
wherein the third conductive layer has a thickness between 12 and 19 um; and
a second insulative layer upon which said third conductive layer is
disposed wherein the second insulative layer has a thickness between 50 and 100 um.
- 20 11. A mobile terminal of Claim 10 further comprising:
a fourth conductive layer upon which said second insulative is disposed,
wherein the fourth conductive layer has a thickness of 12 and 19 um; and
a third insulative layer upon which said fourth conductive layer is
disposed, wherein the third insulative layer has a thickness between 50 and 100 um.
- 25 12. A mobile terminal of Claim 11 wherein said multi-layer printed wire
board structure further comprises:
a fifth conductive layer upon which said third insulative layer is disposed,
wherein said fifth copper layer has a thickness between 12 and 19 um;
30 a fourth insulative layer upon which said fifth conductive layer is
disposed, wherein said fourth insulative layer has a thickness between 50 and 100 um;

a sixth conductive layer upon which said fourth insulative layer is disposed wherein said sixth conductive layer has a thickness between 12 and 19 μm ;

a fifth insulative layer upon which said sixth conductive layer is disposed, wherein said fifth insulative layer has a thickness between 50 and 100 μm ;

5 a seventh conductive layer upon which said fifth insulative layer is disposed, wherein said seventh conductive layer has a thickness between 25 and 50 μm ;

a second insulative-coated conductive layer upon which said seventh conductive layer is disposed, wherein said second insulative-coated conductive layer has a thickness between 50 and 70 μm ; and

10 an eighth conductive layer upon which said second insulative-coated conductive layer is disposed, wherein said eighth conductive layer has a thickness between 25 and 50 μm .

13. A mobile terminal of Claim 9, wherein said first and second conductive
15 layers has a respective nominal thickness of 35 μm ; said first insulative-coated conductive layer has a nominal thickness of 60 μm ; said third conductive layer has a nominal thickness of 17 μm ; and each insulative layer has a respective nominal thickness of 75 μm .

14. A mobile terminal of Claim 9, wherein said first and second conductive
20 layers are formed of copper.

15. A mobile terminal of Claim 10, wherein said first insulative-coated conductive layer comprises a resin-coated copper layer.

16. A mobile terminal of Claim 10, wherein each insulative layer comprises a dielectric layer.

25 17. A mobile terminal of Claim 16, wherein each insulative layer is formed of glass fibers and an epoxy matrix.

18. A mobile terminal of Claim 10 wherein said first insulative-coated conductive layer defines at least one via between said first and second conductive layers

such that said first and second conductive layers are in electrical communication through the at least one via.